

WHAT IS CLAIMED IS

1. A method of manufacturing a high-strength stainless steel bolt, comprising the steps of forming a lubricant coating on the surface of an austenitic stainless steel wire material to obtain a lubricated wire material; cold forming the lubricated wire material within a degree-of-working range of from 0.5 to 1.5 as defined in a natural logarithmic value of the working distortion such that a head portion is bulged as a result of axial compression of the cold formed wire material and a threaded portion formed of part of the bolt material extruded under said axial compression and radially compressed; and then subjecting said threaded portion to form rolling, said lubricant coating being free from exfoliation and destruction at said degree of working range.

2. A method of manufacturing a high-strength stainless bolt according to claim 1, further comprising the steps of removing the lubricant coating from the surface of the material and subjecting said material to a passivation processing.

3. A high-strength stainless bolt, comprising a surface thereof that is formed of the passivated austenitic stainless steel having a tensile strength of at least 1100 MPa.